ABSTRACT OF THE DISCLOSURE

An interrupt-free interface apparatus between a modem processor and a media processor and a method thereof comprises a modem processor for processing data received through a wired or a wireless channel from outer side and for performing various controls according to the data receipt; a multimedia application processor (MAP) for processing information such as voice/sound/moving picture which will be provided to a user; and a dual access memory for storing an indicator and an index for identifying normal transmitting/receiving status of the data and the number of data in case that the data is written or read between the modem processor and the MAP with a predetermined period, to solve problems such as processing speed lowering generated in a case that a processor becomes to have larger processing load so as not to process other task when the interrupt having higher priority is generated frequently between the modem processor and the MAP, and therefore, data processing function between the two processors can be improved and power consumption of the terminal can be reduced.